

SEQUENCE LISTING

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<120> CRYSTAL STRUCTURES OF DOMAINS OF RECEPTOR PROTEIN
 TYROSINE KINASES AND THEIR LIGANDS

<130> 038602/1306

<140> 10/049,429

<141> 2002-02-12

<150> PCT/US00/23744

<151> 2000-08-30

<150> 60/151,810

<151> 1999-08-30

<160> 202

<170> PatentIn Ver. 2.1

<210> 1

<211> 211

<212> PRT

<213> Homo sapiens

<400> 1

Met	Pro	Val	Ala	Pro	Tyr	Trp	Thr	Ser	Pro	Glu	Lys	Met	Glu	Lys	Lys	
1				5					10					15		
Leu	His	Ala	Val	Pro	Ala	Ala	Lys	Thr	Val	Lys	Phe	Lys	Cys	Pro	Ser	
			20					25					30			
Ser	Gly	Thr	Pro	Asn	Pro	Thr	Leu	Arg	Trp	Leu	Lys	Asn	Gly	Lys	Glu	
			35				40					45				
Phe	Lys	Pro	Asp	His	Arg	Ile	Gly	Gly	Tyr	Lys	Val	Arg	Tyr	Ala	Thr	
			50			55					60					
Trp	Ser	Ile	Ile	Met	Asp	Ser	Val	Val	Pro	Ser	Asp	Lys	Gly	Asn	Tyr	
					70					75					80	
Thr	Cys	Ile	Val	Glu	Asn	Glu	Tyr	Gly	Ser	Ile	Asn	His	Thr	Tyr	Gln	
				85					90					95		
Leu	Asp	Val	Val	Glu	Arg	Ser	Pro	His	Arg	Pro	Ile	Leu	Gln	Ala	Gly	
			100					105					110			
Leu	Pro	Ala	Asn	Lys	Thr	Val	Ala	Leu	Gly	Ser	Asn	Val	Glu	Phe	Met	
			115				120					125				
Cys	Lys	Val	Tyr	Ser	Asp	Pro	Gln	Pro	His	Ile	Gln	Trp	Leu	Lys	His	
			130			135					140					

Ile Glu Val Asn Gly Ser Lys Ile Gly Pro Asp Asn Leu Pro Tyr Val
145 150 155 160

Gln Ile Leu Lys Thr Ala Gly Val Asn Thr Thr Asp Lys Glu Met Glu
165 170 175

Val Leu His Leu Arg Asn Val Ser Phe Glu Asp Ala Gly Glu Tyr Thr
180 185 190

Cys Leu Ala Gly Asn Ser Ile Gly Leu Ser His His Ser Ala Trp Leu
195 200 205

Thr Val Leu
210

<210> 2

<211> 211

<212> PRT

<213> Homo sapiens

<400> 2

Asn Lys Arg Ala Pro Tyr Trp Thr Asn Thr Glu Lys Met Glu Lys Arg
1 5 10 15

Leu His Ala Val Pro Ala Ala Asn Thr Val Lys Phe Arg Cys Pro Ala
20 25 30

Gly Gly Asn Pro Met Pro Thr Met Arg Trp Leu Lys Asn Gly Lys Glu
35 40 45

Phe Lys Gln Glu His Arg Ile Gly Gly Tyr Lys Val Arg Asn Gln His
50 55 60

Trp Ser Leu Ile Met Glu Ser Val Val Pro Ser Asp Lys Gly Asn Tyr
65 70 75 80

Thr Cys Val Val Glu Asn Glu Tyr Gly Ser Ile Asn His Thr Tyr His
85 90 95

Leu Asp Val Val Glu Arg Ser Pro His Arg Pro Ile Leu Gln Ala Gly
100 105 110

Leu Pro Ala Asn Ala Ser Thr Val Val Gly Gly Asp Val Glu Phe Val
115 120 125

Cys Lys Val Tyr Ser Asp Ala Gln Pro His Ile Gln Trp Ile Lys His
130 135 140

Val Glu Lys Asn Gly Ser Lys Tyr Gly Pro Asp Gly Leu Pro Tyr Leu
145 150 155 160

Lys Val Leu Lys Ala Ala Gly Val Asn Thr Thr Asp Lys Glu Ile Glu
165 170 175

Val Leu Tyr Ile Arg Asn Val Thr Phe Glu Asp Ala Gly Glu Tyr Thr
180 185 190

Cys Leu Ala Gly Asn Ser Ile Gly Ile Ser Phe His Ser Ala Trp Leu
 195 200 205

Thr Val Leu
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<210> 3
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 <212> PRT
 <213> Homo sapiens

<400> 3
 Asp Thr Gly Ala Pro Tyr Trp Thr Arg Pro Glu Arg Met Asp Lys Lys
 1 5 10 15
 Leu Leu Ala Val Pro Ala Ala Asn Thr Val Arg Phe Arg Cys Pro Ala
 20 25 30
 Ala Gly Thr Pro Thr Pro Ser Ile Ser Trp Leu Lys Asn Gly Arg Glu
 35 40 45
 Phe Arg Gly Glu His Arg Ile Gly Gly Ile Lys Leu Arg His Gln Gln
 50 55 60
 Trp Ser Leu Val Met Glu Ser Val Val Pro Ser Asp Arg Gly Asn Tyr
 65 70 75 80
 Thr Cys Val Val Glu Asn Lys Phe Gly Ser Ile Arg Gln Thr Tyr Thr
 85 90 95
 Leu Asp Val Leu Glu Arg Ser Pro His Arg Pro Ile Leu Gln Ala Gly
 100 105 110
 Leu Pro Ala Asn Gln Thr Ala Val Leu Gly Ser Asp Val Glu Phe His
 115 120 125
 Cys Lys Val Tyr Ser Asp Ala Gln Pro His Ile Gln Trp Leu Lys His
 130 135 140
 Val Glu Val Asn Gly Ser Lys Val Gly Pro Asp Gly Thr Pro Tyr Val
 145 150 155 160
 Thr Val Leu Lys Thr Ala Gly Ala Asn Thr Thr Asp Lys Glu Leu Glu
 165 170 175
 Val Leu Ser Leu His Asn Val Thr Phe Glu Asp Ala Gly Glu Tyr Thr
 180 185 190
 Cys Leu Ala Gly Asn Ser Ile Gly Phe Ser His His Ser Ala Trp Leu
 195 200 205
 Val Val Leu
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<210> 4
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<212> PRT

<213> Homo sapiens

<400> 4

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Pro Gln Gln Ala Pro Tyr Trp Thr His Pro Gln Arg Met Glu Lys Lys
 1           5           10           15

Leu His Ala Val Pro Ala Cys Asn Thr Val Lys Phe Arg Cys Pro Ala
      20           25           30

Ala Gly Asn Pro Thr Pro Thr Ile Arg Trp Leu Lys Asp Gly Gln Ala
      35           40           45

Phe His Gly Glu Asn Arg Ile Gly Gly Ile Arg Leu Arg Tyr His Gln
 50           55           60

His Ser Leu Val Met Glu Ser Val Val Pro Ser Asp Arg Gly Thr Tyr
 65           70           75           80

Thr Cys Leu Val Glu Asn Ala Val Gly Ser Ile Arg Tyr Asn Tyr Leu
      85           90           95

Leu Asp Val Leu Glu Arg Ser Pro His Arg Pro Ile Leu Gln Ala Gly
      100          105          110

Leu Pro Ala Asn Thr Thr Ala Val Val Gly Ser Asn Asp Glu Leu Leu
      115          120          125

Cys Lys Val Tyr Ser Asp Ala Gln Pro His Ile Gln Trp Leu Lys His
      130          135          140

Ile Val Ile Asn Gly Ser Ser Phe Gly Ala Val Gly Thr Pro Tyr Val
      145          150          155          160

Gln Val Leu Lys Thr Ala Asp Ile Asn Ser Ser Glu Val Glu Val Leu
      165          170          175

Tyr Leu Arg Asn Val Ser Ala Glu Asp Ala Gly Glu Tyr Thr Cys Leu
      180          185          190

Ala Gly Asn Ser Ile Gly Leu Ser Tyr Gln Ser Ala Trp Leu Thr Val
      195          200          205

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Leu

<210> 5

<211> 103

<212> PRT

<213> Homo sapiens

<400> 5

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Met Pro Val Ala Pro Tyr Trp Thr Ser Pro Glu Lys Met Glu Lys Lys
 1           5           10           15

Leu His Ala Val Pro Ala Ala Lys Thr Val Lys Phe Arg Cys Pro Ser
      20           25           30

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<210> 6
<211> 103
<212> PRT
<213> Homo sapiens
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<400> 6
Asn Lys Arg Ala Pro Tyr Trp Thr Asn Thr Glu Lys Met Glu Lys Arg
  1                               5                10                15

Leu His Ala Val Pro Ala Ala Asn Thr Val Lys Phe Arg Cys Pro Ala
      20                25                30

Gly Gly Asn Pro Met Pro Thr Met Arg Trp Leu Lys Asn Gly Lys Glu
      35                40                45

Phe Lys Gln Glu His Arg Ile Gly Gly Tyr Lys Val Arg Asn Gln His
  50                55                60

Trp Ser Leu Ile Met Glu Ser Val Val Pro Ser Asp Lys Gly Asn Tyr
  65                70                75                80

Thr Cys Val Val Glu Asn Glu Tyr Gly Ser Ile Asn His Thr Tyr His
      85                90                95

Leu Asp Val Val Glu Arg Ser
      100

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<210> 7
<211> 103
<212> PRT
<213> Homo sapiens
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<400> 7
Asp Thr Gly Ala Pro Tyr Trp Thr Arg Pro Glu Arg Met Asp Lys Lys
  1          5          10          15
Leu Leu Ala Val Pro Ala Ala Asn Thr Val Arg Phe Arg Cys Pro Ala
          20          25          30
Ala Gly Asn Pro Thr Pro Ser Ile Ser Trp Leu Lys Asn Gly Arg Glu
      35          40          45

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Phe Arg Gly Glu His Arg Ile Gly Gly Ile Lys Leu Arg His Gln Gln
 50 55 60
 Trp Ser Leu Val Met Glu Ser Val Val Pro Ser Asp Arg Gly Asn Tyr
 65 70 75 80
 Thr Cys Val Val Glu Asn Lys Phe Gly Ser Ile Arg Gln Thr Tyr Thr
 85 90 95
 Leu Asp Val Leu Glu Arg Ser
 100

<210> 8
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 8
 Pro Gln Gln Ala Pro Tyr Trp Thr His Pro Gln Arg Met Glu Lys Lys
 1 5 10 15
 Leu His Ala Val Pro Ala Gly Asn Thr Val Lys Phe Arg Cys Pro Ala
 20 25 30
 Ala Gly Asn Pro Thr Pro Thr Ile Arg Trp Leu Lys Asp Gly Gln Ala
 35 40 45
 Phe His Gly Glu Asn Arg Ile Gly Gly Ile Arg Leu Arg His Gln His
 50 55 60
 Trp Ser Leu Val Met Glu Ser Val Val Pro Ser Asp Arg Gly Thr Tyr
 65 70 75 80
 Thr Cys Leu Val Glu Asn Ala Val Gly Ser Ile Arg Tyr Asn Tyr Leu
 85 90 95
 Leu Asp Val Leu Glu Arg Ser
 100

<210> 9
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 9
 Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Lys Thr Val
 1 5 10 15
 Ala Leu Gly Ser Asn Val Glu Phe Met Cys Lys Val Tyr Ser Asp Pro
 20 25 30
 Gln Pro His Ile Gln Trp Leu Lys His Ile Glu Val Asn Gly Ser Lys
 35 40 45

Ile Gly Pro Asp Asn Leu Pro Tyr Val Gln Ile Leu Lys Thr Ala Gly
 50 55 60
 Val Asn Thr Thr Asp Lys Glu Met Glu Val Leu His Leu Arg Asn Val
 65 70 75 80
 Ser Phe Glu Asp Ala Gly Glu Tyr Thr Cys Leu Ala Gly Asn Ser Ile
 85 90 95
 Gly Leu Ser His His Ser Ala Trp Leu Thr Val Leu
 100 105

<210> 10
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 10
 Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Ala Ser Thr
 1 5 10 15
 Val Val Gly Gly Asp Val Glu Phe Val Cys Lys Val Tyr Ser Asp Ala
 20 25 30
 Gln Pro His Ile Gln Trp Ile Lys His Val Glu Lys Asn Gly Ser Lys
 35 40 45
 Tyr Gly Pro Asp Gly Leu Pro Tyr Leu Lys Val Leu Lys Ala Ala Gly
 50 55 60
 Val Asn Thr Thr Asp Lys Glu Ile Glu Val Leu Tyr Ile Arg Asn Val
 65 70 75 80
 Thr Phe Glu Asp Ala Gly Glu Tyr Thr Cys Leu Ala Gly Asn Ser Ile
 85 90 95
 Gly Ile Ser Phe His Ser Ala Trp Leu Thr Val Leu
 100 105

<210> 11
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 11
 Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Gln Thr Ala
 1 5 10 15
 Val Leu Gly Ser Asp Val Glu Phe His Cys Lys Val Tyr Ser Asp Ala
 20 25 30
 Gln Pro His Ile Gln Trp Leu Lys His Val Glu Val Asn Gly Ser Lys
 35 40 45
 Val Gly Pro Asp Gly Thr Pro Tyr Val Thr Val Leu Lys Thr Ala Gly
 50 55 60

Ala Asn Thr Thr Asp Lys Glu Leu Glu Val Leu Ser Leu His Asn Val
 65 70 75 80
 Thr Phe Glu Asp Ala Gly Glu Tyr Thr Cys Leu Ala Gly Asn Ser Ile
 85 90 95
 Gly Phe Ser His His Ser Ala Trp Leu Val Val Leu
 100 105

<210> 12
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 12
 Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Thr Thr Ala
 1 5 10 15
 Val Val Gly Ser Asp Val Glu Leu Leu Cys Lys Val Tyr Ser Asp Ala
 20 25 30
 Gln Pro His Ile Gln Trp Leu Lys His Ile Val Ile Asn Gly Ser Ser
 35 40 45
 Phe Gly Ala Val Gly Phe Pro Tyr Leu Lys Val Val Gln Thr Ala Asp
 50 55 60
 Ile Asn Ser Ser Glu Val Glu Val Leu Tyr Leu Arg Asn Val Ser Ala
 65 70 75 80
 Glu Asp Ala Gly Glu Tyr Thr Cys Leu Ala Gly Asn Ser Ile Gly Leu
 85 90 95
 Ser Tyr Gln Ser Ala Trp Leu Thr Val Leu
 100 105

<210> 13
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 13
 Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Lys Thr Val
 1 5 10 15
 Ala Leu Gly Ser Asn Val Glu Phe Met Cys Lys Val Tyr Ser Asp Pro
 20 25 30
 Gln Pro His Ile Gln Trp Leu Lys His Ile Glu Val Asn Gly Ser Lys
 35 40 45
 Ile Gly Pro Asp Asn Leu Pro Tyr Val Gln Ile Leu Lys His Ser Gly
 50 55 60

Ile Asn Ser Ser Asp Ala Glu Val Leu Thr Leu Phe Asn Val Thr Glu
65 70 75 80

Ala Gln Ser Gly Glu Tyr Val Cys Lys Val Ser Asn Tyr Ile Gly Glu
85 90 95

Ala Asn Gln Ser Ala Trp Leu Thr Val Thr
100 105

<210> 14

<211> 106

<212> PRT

<213> Homo sapiens

<400> 14

Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Ala Ser Thr
1 5 10 15

Val Val Gly Gly Asp Val Glu Phe Val Cys Lys Val Tyr Ser Asp Ala
20 25 30

Gln Pro His Ile Gln Trp Ile Lys His Val Glu Lys Asn Gly Ser Lys
35 40 45

Tyr Gly Pro Asp Gly Leu Pro Tyr Leu Lys Val Leu Lys His Ser Gly
50 55 60

Ile Asn Ser Ser Asn Ala Glu Val Leu Ala Leu Phe Asn Val Thr Glu
65 70 75 80

Ala Asp Ala Gly Glu Tyr Ile Cys Lys Val Ser Asn Tyr Ile Gly Gln
85 90 95

Ala Asn Gln Ser Ala Trp Leu Thr Val Leu
100 105

<210> 15

<211> 108

<212> PRT

<213> Homo sapiens

<400> 15

Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Gln Thr Ala
1 5 10 15

Val Leu Gly Ser Asp Val Glu Phe His Cys Lys Val Tyr Ser Asp Ala
20 25 30

Gln Pro His Ile Gln Trp Leu Lys His Val Glu Val Asn Gly Ser Lys
35 40 45

Val Gly Pro Asp Gly Thr Pro Tyr Val Thr Val Leu Lys Thr Ser Trp
50 55 60

Ile Ser Glu Ser Val Glu Ala Asp Val Arg Leu Arg Leu Ala Asn Val
65 70 75 80

Ser Glu Arg Asp Gly Glu Tyr Thr Leu Cys Arg Ala Thr Asn Phe Ile
85 90 95

Gly Val Ala Glu Lys Ala Phe Ala Trp Ser Val His
100 105

<210> 16

<211> 108

<212> PRT

<213> Homo sapiens

<400> 16

Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Lys Thr Val
1 5 10 15

Ala Leu Gly Ser Asn Val Glu Phe Met Cys Lys Val Tyr Ser Asp Pro
20 25 30

Gln Pro His Ile Gln Trp Leu Lys His Ile Glu Val Asn Gly Ser Lys
35 40 45

Ile Gly Pro Asp Asn Leu Pro Tyr Val Gln Ile Leu Lys Val Ile Met
50 55 60

Ala Pro Val Phe Val Gly Gln Ser Thr Gly Lys Glu Thr Thr Val Ser
65 70 75 80

Gly Ala Gln Val Pro Val Gly Arg Leu Ser Cys Pro Arg Met Gly Ser
85 90 95

Phe Leu Thr Leu Gln Ala His Thr Leu His Leu Ser
100 105

<210> 17

<211> 132

<212> PRT

<213> Homo sapiens

<400> 17

Pro Gly Asn Tyr Lys Lys Pro Lys Leu Leu Tyr Cys Ser Asn Gly His
1 5 10 15

Phe Leu Arg Ile Leu Pro Asp Gly Thr Val Asp Gly Asp Arg Ser Asp
20 25 30

Gln His Ile Gln Leu Gln Leu Ser Ala Glu Ser Val Glu Val Tyr Ile
35 40 45

Lys Ser Thr Glu Thr Gly Gln Tyr Leu Ala Met Asp Thr Asp Gly Leu
50 55 60

Leu Tyr Gly Ser Gln Thr Pro Asn Glu Glu Cys Leu Phe Leu Glu Arg
65 70 75 80

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<210> 18
<211> 133
<212> PRT
<213> Homo sapiens
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<210> 19
<211> 150
<212> PRT
<213> Homo sapiens
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<400> 19
Leu Gly Gly Ala  Pro  Arg  Arg  Arg  Lys  Leu Tyr Cys Ala Thr  Lys Tyr
   1                                10                      15

His  Leu  Gln  Leu  His  Pro  Ser  Gly  Arg  Val  Asn  Gly  Ser  Leu  Glu  Asn
                20                25                30

```

Ser Ala Tyr Ser Ile Leu Glu Ile Thr Ala Val Glu Val Gly Ile Val
 35 40 45
 Ala Ile Arg Gly Leu Phe Ser Gly Arg Tyr Leu Ala Met Asn Lys Arg
 50 55 60
 Gly Arg Leu Tyr Ala Ser Glu His Tyr Ser Ala Glu Cys Glu Phe Val
 65 70 75 80
 Glu Arg Ile His Glu Leu Gly Tyr Asn Thr Tyr Ala Ser Arg Leu Tyr
 85 90 95
 Arg Thr Val Ser Ser Thr Pro Gly Ala Arg Arg Gln Pro Ser Ala Glu
 100 105 110
 Arg Leu Trp Tyr Val Ser Val Asn Gly Lys Gly Arg Pro Arg Arg Gly
 115 120 125
 Phe Lys Thr Arg Arg Thr Gln Lys Ser Ser Leu Phe Leu Pro Arg Val
 130 135 140
 Leu Asp His Arg Asp His
 145 150

<210> 20
 <211> 132
 <212> PRT
 <213> Homo sapiens

<400> 20
 Leu Leu Gly Ile Pro Arg Leu Arg Arg Leu Tyr Cys Asn Val Gly Ile
 1 5 10 15
 Gly Phe His Leu Gln Ala Leu Pro Asp Gly Arg Ile Gly Gly Ala His
 20 25 30
 Ala Asp Thr Arg Asp Ser Leu Leu Glu Glu Leu Ser Pro Val Glu Arg
 35 40 45
 Gly Val Val Ser Ile Phe Gly Val Ala Ser Arg Phe Phe Val Ala Met
 50 55 60
 Ser Ser Lys Gly Lys Leu Tyr Tyr Gly Ser Pro Phe Phe Thr Asp Glu
 65 70 75 80
 Cys Thr Phe Lys Glu Ile Leu Leu Pro Asn Asn Tyr Asn Ala Tyr Glu
 85 90 95
 Ser Tyr Lys Tyr Pro Gly Met Phe Ile Ala Leu Ser Lys Asn Gly Lys
 100 105 110
 Thr Lys Lys Gly Asn Arg Val Ser Pro Thr Met Lys Val Thr His Phe
 115 120 125
 Leu Pro Arg Leu
 130

<210> 21
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 21
 Ser Pro Ser Gly Arg Arg Thr Gly Ser Leu Tyr Cys Arg Val Gly Ile
 1 5 10 15
 Gly Phe His Leu Gln Ile Tyr Pro Asp Gly Lys Val Asn Gly Ser His
 20 25 30
 Glu Ala Asn Met Leu Ser Val Leu Glu Ile Phe Ala Val Ser Gln Gly
 35 40 45
 Ile Val Gly Ile Arg Gly Val Phe Ser Asn Lys Phe Leu Ala Met Ser
 50 55 60
 Lys Lys Gly Lys Leu His Ala Ser Ala Lys Phe Thr Asp Asp Cys Lys
 65 70 75 80
 Phe Arg Glu Arg Phe Gln Glu Asn Ser Asn Tyr Thr Tyr Ala Ser Ala
 85 90 95
 Ala Ile His Arg Thr Glu Lys Thr Gly Arg Glu Trp Tyr Val Ala Leu
 100 105 110
 Asn Lys Arg Gly Lys Ala Lys Arg Gly Cys Ala Pro Arg Val Lys Gln
 115 120 125
 His Ile Ser Thr Phe Leu Pro Arg Phe Lys Gln Ser Glu Gln Pro
 130 135 140

<210> 22
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 22
 Leu Val Gly Ile Lys Arg Gln Arg Arg Leu Tyr Cys Asn Val Gly Ile
 1 5 10 15
 Gly Phe His Leu Gln Val Leu Pro Asp Gly Arg Ile Ser Gly Thr His
 20 25 30
 Glu Glu Asn Pro Tyr Ser Leu Leu Glu Ile Ser Thr Val Glu Arg Gly
 35 40 45
 Val Val Ser Leu Phe Gly Val Arg Ser Ala Leu Phe Val Ala Met Asn
 50 55 60
 Ser Lys Gly Arg Leu Tyr Ala Thr Pro Ser Gln Phe Glu Glu Cys Lys
 65 70 75 80

```
Phe Arg Glu Thr Leu Leu Pro Asn Asn Tyr Asn Ala Tyr Glu Ser Asp  
      85              90          95
```

```
Leu Tyr Gln Gly Thr Tyr Ile Ala Leu Ser Lys Tyr Gly Arg Val Lys  
      100             105         110
```

```
Arg Gly Ser Lys Val Ser Pro Ile Met Thr Val Thr His Phe Leu Pro  
      115             120         125
```

```
Arg Ile  
      130
```

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<210> 23
<211> 135
<212> PRT
<213> Homo sapiens
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```
<400> 23  
Glu Gly Gly Asp Ile Arg Val Arg Arg Leu Phe Cys Arg Thr Gln Trp  
   1           5          10      15  
  
Tyr Leu Arg Ile Asp Lys Arg Gly Lys Val Lys Gly Thr Gln Glu Met  
                20              25            30  
  
Lys Asn Asn Tyr Asn Ile Met Glu Ile Arg Thr Val Ala Val Gly Ile  
        35             40         45  
  
Val Ala Ile Lys Gly Val Glu Ser Glu Phe Tyr Leu Ala Met Asn Lys  
    50               55       60  
  
Glu Gly Lys Leu Tyr Ala Lys Lys Glu Cys Asn Glu Asp Cys Asn Phe  
   65             70     75      80  
  
Lys Glu Leu Ile Leu Glu Asn His Tyr Asn Thr Tyr Ala Ser Ala Lys  
                 85           90          95  
  
Trp Thr His Asn Gly Gly Glu Met Phe Val Ala Leu Asn Gln Lys Gly  
        100        105      110  
  
Ile Pro Val Arg Gly Lys Lys Thr Lys Lys Glu Gln Lys Thr Ala His  
    115             120      125  
  
Phe Leu Pro Met Ala Ile Thr  
   130             135
```

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<210> 24
<211> 138
<212> PRT
<213> Homo sapiens
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<400> 24
Ser Arg Arg Leu Ile Arg Thr Tyr Gln Leu Tyr Ser Arg Thr Ser Gly
 1             5             10             15

Lys His Val Gln Val Leu Ala Asn Lys Arg Ile Asn Ala Met Ala Glu
      20             25             30

```

Asp	Gly	Asp 35	Pro	Phe	Ala	Lys	Leu 40	Ile	Val	Glu	Thr	Asp 45	Thr	Phe	Gly
Ser	Arg 50	Val	Arg	Val	Arg	Gly 55	Ala	Glu	Thr	Gly	Leu 60	Tyr	Ile	Cys	Met
Asn 65	Lys	Lys	Gly	Lys	Leu 70	Ile	Ala	Lys	Ser	Asn 75	Gly	Lys	Gly	Lys	Asp 80
Cys	Val	Phe	Thr	Glu 85	Ile	Val	Leu	Glu	Asn 90	Asn	Tyr	Thr	Ala	Leu 95	Gln
Asn	Ala	Lys 100	Tyr	Glu	Gly	Trp	Tyr 105	Met	Ala	Phe	Thr	Arg	Lys 110	Gly	Arg
Pro	Arg 115	Lys	Gly	Ser	Lys	Thr	Arg 120	Gln	His	Gln	Arg	Glu 125	Val	His	Phe
Met 130	Lys	Arg	Leu	Pro	Arg	Gly 135	His	His	Thr						

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<210> 25
<211> 141
<212> PRT
<213> Homo sapiens
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<400> 25
Leu Lys Gly Ile Leu Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe
  1          5          10          15
His Leu Glu Ile Phe Pro Asn Gly Thr Ile Gln Gly Thr Arg Lys Asp
      20          25          30
His Ser Arg Phe Gly Ile Leu Glu Phe Ile Ser Ile Ala Val Gly Leu
      35          40          45
Val Ser Ile Arg Gly Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Glu
      50          55          60
Lys Gly Glu Leu Tyr Gly Ser Glu Lys Leu Thr Gln Glu Cys Val Phe
      65          70          75          80
Arg Glu Gln Phe Glu Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Leu
      85          90          95
Tyr Lys His Val Asp Thr Gly Arg Arg Tyr Tyr Val Ala Leu Asn Lys
      100          105          110
Asp Gly Thr Pro Arg Glu Gly Thr Arg Thr Lys Arg His Gln Lys Phe
      115          120          125
Thr His Phe Leu Pro Arg Pro Ala Asp Pro Asp Lys Val
      130          135          140

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<210> 26
 <211> 137
 <212> PRT
 <213> Homo sapiens

<400> 26
 Leu Gln Gly Asp Gly Val Arg Trp Lys Lys Leu Phe Ser Phe Thr Lys
 1 5 10 15
 Tyr Phe Leu Lys Ile Glu Lys Asn Gly Lys Val Ser Gly Thr Lys Lys
 20 25 30
 Glu Asn Cys Pro Tyr Ser Ile Leu Glu Ile Thr Ser Val Glu Ile Gly
 35 40 45
 Val Val Ala Val Lys Ala Ile Asn Ser Asn Tyr Tyr Leu Ala Met Asn
 50 55 60
 Lys Lys Gly Lys Leu Tyr Gly Ser Lys Glu Phe Asn Asn Asp Cys Lys
 65 70 75 80
 Leu Lys Glu Arg Ile Glu Glu Asn Gly Tyr Asn Thr Tyr Ala Ser Phe
 85 90 95
 Asn Trp Gln His Asn Gly Arg Gln Met Tyr Val Ala Leu Asn Gly Lys
 100 105 110
 Gly Ala Pro Arg Arg Gly Gln Lys Thr Arg Arg Lys Asn Thr Ser Ala
 115 120 125
 His Phe Leu Pro Met Val Ala His Ser
 130 135

<210> 27
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 27
 Pro Gln Leu Lys Gly Ile Val Thr Lys Leu Phe Cys Arg Gln Gly Phe
 1 5 10 15
 Tyr Leu Gln Ala Asn Pro Asp Gly Ser Ile Gln Gly Thr Pro Glu Asp
 20 25 30
 Thr Ser Ser Phe Thr His Phe Asn Leu Ile Pro Val Gly Leu Arg Val
 35 40 45
 Val Thr Ile Gln Ser Ala Lys Leu Gly His Tyr Met Ala Met Asn Ala
 50 55 60
 Glu Gly Leu Leu Tyr Ser Ser Pro His Phe Thr Ala Glu Cys Arg Phe
 65 70 75 80
 Lys Glu Cys Val Phe Glu Asn Tyr Tyr Val Leu Tyr Ala Ser Ala Leu
 85 90 95

Tyr Arg Gln Arg Arg Ser Gly Arg Ala Trp Tyr Leu Gly Leu Asp Lys
 100 105 110

Glu Gly Gln Val Met Lys Gly Asn Arg Val Lys Lys Thr Lys Ala Ala
 115 120 125

His Phe Leu Pro Lys Leu Leu Glu Val Ala Met Tyr
 130 135 140

<210> 28
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 <212> PRT
 <213> Homo sapiens

<400> 28
 Pro Gln Leu Lys Gly Ile Val Thr Arg Leu Phe Ser Gln Gln Gly Tyr
 1 5 10 15

Phe Leu Gln Met His Pro Asp Gly Thr Ile Gly Val Thr Lys Asp Glu
 20 25 30

Asn Ser Asp Tyr Thr Leu Phe Asn Leu Ile Pro Val Gly Leu Arg Val
 35 40 45

Val Ala Ile Gln Gly Val Lys Ala Ser Leu Tyr Val Ala Met Asn Gly
 50 55 60

Glu Gly Tyr Leu Tyr Ser Ser Asp Val Phe Thr Pro Glu Cys Lys Phe
 65 70 75 80

Lys Glu Ser Val Phe Glu Asn Tyr Tyr Val Ile Tyr Ser Ser Thr Leu
 85 90 95

Tyr Arg Gln Gln Glu Ser Gly Arg Ala Trp Phe Leu Gly Leu Asn Lys
 100 105 110

Glu Gly Gln Ile Met Lys Gly Asn Arg Val Lys Lys Thr Lys Pro Ser
 115 120 125

Ser His Phe Val Pro Lys Pro Ile Glu Val Cys Met Tyr
 130 135 140

<210> 29
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 <212> PRT
 <213> Homo sapiens

<400> 29
 Pro Gln Leu Lys Gly Ile Val Thr Lys Leu Tyr Ser Arg Gln Gly Tyr
 1 5 10 15

His Leu Gln Leu Gln Ala Asp Gly Thr Ile Asp Gly Thr Lys Asp Glu
 20 25 30

Asp Ser Thr Tyr Thr Leu Phe Asn Leu Ile Pro Val Gly Leu Arg Val
 35 40 45

Val Ala Ile Gln Gly Val Gln Thr Lys Leu Tyr Leu Ala Met Asn Ser
 50 55 60
 Glu Gly Tyr Leu Tyr Thr Glu Ser Glu Leu Phe Thr Pro Glu Cys Lys
 65 70 75 80
 Phe Lys Glu Ser Val Phe Glu Asn Tyr Tyr Val Thr Tyr Ser Met Ile
 85 90 95
 Tyr Arg Gln Gln Gln Ser Gly Arg Gly Trp Tyr Leu Gly Leu Asn Lys
 100 105 110
 Glu Gly Glu Ile Met Lys Gly Asn His Val Lys Lys Asn Lys Pro Ala
 115 120 125
 Ala His Phe Leu Pro Lys Pro Leu Lys Val Ala Met Tyr
 130 135 140

<210> 30
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 30
 Leu Gln Leu Lys Gly Ile Val Thr Arg Leu Tyr Cys Arg Gln Gly Tyr
 1 5 10 15
 Tyr Leu Gln Met His Pro Asp Gly Ala Leu Asp Gly Thr Lys Asp Asp
 20 25 30
 Ser Thr Asn Ser Thr Leu Phe Asn Leu Ile Pro Val Gly Leu Arg Val
 35 40 45
 Val Ala Ile Gln Gly Val Lys Thr Gly Leu Tyr Ile Ala Met Asn Gly
 50 55 60
 Glu Gly Tyr Leu Tyr Pro Ser Glu Leu Phe Pro Thr Pro Glu Cys Lys
 65 70 75 80
 Phe Lys Glu Ser Val Phe Glu Asn Tyr Tyr Val Ile Tyr Ser Ser Met
 85 90 95
 Leu Tyr Arg Gln Gln Glu Ser Gly Arg Ala Tyr Phe Leu Gly Val Asn
 100 105 110
 Lys Glu Gly Gln Ala Met Lys Gly Asn Arg Val Lys Lys Thr Lys Pro
 115 120 125
 Ala Ala His Phe Leu Pro Lys Pro Leu Glu Val Ala Met Tyr
 130 135 140

<210> 31
 <211> 134
 <212> PRT
 <213> Gallus sp.

<400> 31

Trp Gly Lys Ile Thr Arg Leu Gln Tyr Leu Tyr Ser Ala Gly Pro Tyr
 1 5 10 15
 Val Ser Asn Cys Phe Leu Arg Ile Arg Ser Asp Gly Ser Asp Gly Cys
 20 25 30
 Glu Glu Asp Gln Asn Glu Arg Asn Leu Leu Glu Phe Arg Ala Val Ala
 35 40 45
 Leu Lys Thr Ile Ala Ile Lys Asp Val Ser Ser Val Arg Tyr Leu Cys
 50 55 60
 Met Ser Ala Asp Gly Lys Ile Tyr Gly Leu Ile Arg Tyr Ser Glu Glu
 65 70 75 80
 Asp Cys Thr Phe Arg Glu Glu Met Asp Cys Leu Gly Tyr Asn Gln Tyr
 85 90 95
 Arg Ser Met Lys His His Leu His Ile Ile Phe Ile Gln Ala Lys Pro
 100 105 110
 Arg Glu Gln Leu Gln Asp Gln Lys Pro Ser Asn Phe Ile Pro Val Phe
 115 120 125
 His Arg Ser Phe Phe Glu
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<210> 32

<211> 141

<212> PRT

<213> Homo sapiens

<400> 32

Leu Lys Gly Ile Leu Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe
 1 5 10 15
 His Leu Glu Ile Phe Pro Asn Gly Thr Asp His Gly Thr Arg His Asp
 20 25 30
 His Ser Arg Phe Gly Ile Leu Glu Phe Ile Ser Leu Ala Val Gly Leu
 35 40 45
 Ile Ser Ile Arg Gly Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Glu
 50 55 60
 Arg Gly Glu Leu Tyr Gly Ser Lys Lys Leu Thr Arg Glu Cys Val Phe
 65 70 75 80
 Arg Glu Gln Phe Glu Glu Asn Trp Tyr Asn Thr Tyr Ala Ser Thr Leu
 85 90 95
 Tyr Lys His Ser Asp Ser Glu Arg Gln Tyr Tyr Val Ala Leu Asn Lys
 100 105 110

Asp Gly Ser Pro Arg Glu Gly Tyr Arg Thr Lys Arg His Gln Lys Phe
 115 120 125

Thr His Phe Leu Pro Arg Pro Ala Asp Pro Ser Lys Leu
 130 135 140

<210> 33
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 33
 Ser Arg Arg Gln Ile Arg Glu Tyr Gln Leu Tyr Ser Arg Thr Ser Gly
 1 5 10 15
 Lys His Val Gln Val Thr Gly Arg Arg Ile Ser Ala Thr Ala Glu Asp
 20 25 30
 Gly Asn Lys Phe Ala Lys Leu Ile Val Glu Thr Asp Thr Phe Gly Ser
 35 40 45
 Arg Val Arg Lys Gly Val Ala Glu Ser Lys Tyr Ile Cys Met Asn Lys
 50 55 60
 Arg Gly Lys Leu Ile Gly Lys Pro Ser Gly Lys Ser Lys Asp Cys Val
 65 70 75 80
 Phe Thr Glu Ile Val Leu Glu Asn Asn Tyr Thr Ala Phe Gln Asn Ala
 85 90 95
 Arg His Glu Gly Trp Phe Met Ala Phe Thr Arg Gln Gly Arg Pro Arg
 100 105 110
 Gln Ala Ser Arg Ser Arg Gln Asn Gln Arg Glu Ala His Phe Ile Lys
 115 120 125
 Arg Leu Tyr Gln Gly Gln Leu Pro
 130 135

<210> 34
 <211> 137
 <212> PRT
 <213> Homo sapiens

<400> 34
 Ser Arg Lys Gln Leu Arg Leu Tyr Gln Leu Tyr Ser Arg Thr Ser Gly
 1 5 10 15
 Lys His Ile Gln Val Leu Gly Arg Arg Ile Ser Ala Arg Gly Glu Asp
 20 25 30
 Gly Pro Lys Tyr Ala Gln Leu Leu Val Glu Thr Asp Thr Phe Gly Ser
 35 40 45
 Gln Val Arg Ile Lys Gly Lys Glu Thr Glu Phe Tyr Leu Cys Met Asn
 50 55 60

Arg Lys Gly Lys Leu Val Gly Lys Pro Asp Gly Thr Ser Lys Glu Cys
 65 70 75 80
 Val Phe Ile Glu Lys Val Leu Glu Asn Asn Tyr Thr Ala Leu Met Ser
 85 90 95
 Ala Lys Tyr Ser Gly Trp Tyr Val Gly Phe Thr Lys Lys Gly Arg Pro
 100 105 110
 Arg Lys Gly Pro Lys Thr Arg Glu Asn Gln Gln Asp Val His Phe Met
 115 120 125
 Lys Arg Tyr Pro Lys Gly Gln Pro Glu
 130 135

<210> 35
 <211> 137
 <212> PRT
 <213> Homo sapiens

<400> 35
 Trp Gly Pro Ile Arg Leu Arg His Leu Tyr Thr Ser Gly Pro His Gly
 1 5 10 15
 Leu Ser Ser Cys Phe Leu Arg Ile Arg Ala Asp Gly Val Asp Gly Cys
 20 25 30
 Ala Arg Gly Gln Ser Ala Ile Ser Leu Leu Glu Ile Lys Ala Val Ala
 35 40 45
 Leu Arg Thr Val Ala Ile Lys Gly Val His Ser Val Arg Tyr Leu Cys
 50 55 60
 Met Gly Ala Asp Gly Lys Met Gln Gly Leu Leu Gln Tyr Ser Glu Glu
 65 70 75 80
 Asp Cys Ala Phe Glu Glu Glu Ile Arg Pro Asp Gly Tyr Asn Val Tyr
 85 90 95
 Arg Ser Glu Lys His Arg Leu Pro Val Ser Leu Ser Ser Ala Lys Gln
 100 105 110
 Arg Gln Leu Tyr Lys Asn Arg Gly Phe Leu Pro Leu Ser His Phe Leu
 115 120 125
 Pro Met Leu Pro Met Val Pro Glu Glu
 130 135

<210> 36
 <211> 39
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: SCF peptide

<400> 36

Glu Gly Ile Cys Arg Asn Arg Val Thr Asn Asn Val Lys Asp Val Thr
 1 5 10 15
 Lys Leu Val Ala Asn Leu Pro Lys Asp Tyr Met Ile Thr Leu Lys Tyr
 20 25 30
 Val Pro Gly Met Asp Val Leu
 35

<210> 37

<211> 42

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: M-SCF peptide

<400> 37

Ser Glu Tyr Cys Ser His Met Ile Gly Ser Gly His Leu Gln Ser Leu
 1 5 10 15
 Gln Arg Leu Ile Asp Ser Gln Met Glu Thr Ser Cys Gln Ile Thr Phe
 20 25 30
 Glu Phe Val Asp Gln Glu Gln Leu Lys Asp
 35 40

<210> 38

<211> 36

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: IL-5 peptide

<400> 38

Ile Pro Thr Ser Ala Leu Val Lys Glu Thr Leu Ala Leu Leu Ser Thr
 1 5 10 15
 His Arg Thr Leu Leu Ile Ala Asn Glu Thr Leu Arg Ile Pro Val Pro
 20 25 30
 Val His Lys Asn
 35

<210> 39

<211> 59

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: SCF peptide

<400> 39

Pro Ser His Cys Trp Ile Ser Glu Met Val Val Gln Leu Ser Asp Ser
 1 5 10 15
 Leu Thr Asp Leu Leu Asp Lys Phe Ser Asn Ile Ser Glu Gly Leu Ser
 20 25 30
 Asn Tyr Ser Leu Ile Asp Lys Ile Val Asn Ile Val Asp Asp Leu Val
 35 40 45
 Glu Cys Val Lys Glu Asn Ser Ser Lys Asp Leu
 50 55

<210> 40

<211> 50

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: M-SCF peptide

<400> 40

Pro Val Cys Tyr Leu Lys Lys Ala Phe Leu Leu Val Gln Asp Ile Met
 1 5 10 15
 Glu Asp Thr Met Arg Phe Arg Asp Asn Thr Pro Asn Ala Ile Ala Ile
 20 25 30
 Val Gln Leu Gln Glu Leu Ser Ile Arg Leu Lys Ser Cys Phe Thr Lys
 35 40 45
 Asp Tyr
 50

<210> 41

<211> 48

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: IL-5 peptide

<400> 41

His Gln Leu Cys Thr Glu Glu Ile Phe Gln Gly Ile Gly Thr Leu Glu
 1 5 10 15
 Ser Gln Thr Val Gln Gly Gly Thr Val Glu Arg Leu Phe Lys Asn Leu
 20 25 30
 Ser Leu Ile Lys Lys Tyr Ile Asp Gly Gln Lys Lys Lys Cys Gly Glu
 35 40 45

<210> 42

<211> 43

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: SCF peptide

<400> 42

Lys Lys Ser Phe Lys Ser Pro Glu Pro Arg Leu Phe Thr Pro Glu Glu
1 5 10 15

Phe Phe Arg Ile Phe Asn Arg Ser Ile Asp Ala Phe Lys Asp Phe Val
20 25 30

Val Ala Ser Glu Thr Ser Asp Cys Val Val Ser
35 40

<210> 43

<211> 56

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: M-SCF peptide

<400> 43

Glu Glu His Asp Lys Ala Cys Val Arg Thr Phe Tyr Glu Thr Pro Leu
1 5 10 15

Gln Leu Leu Glu Lys Val Lys Asn Val Phe Asn Glu Thr Lys Asn Leu
20 25 30

Leu Asp Lys Asp Trp Asn Ile Phe Ser Lys Asn Cys Asn Asn Ser Phe
35 40 45

Ala Glu Cys Ser Ser Gln Gly His
50 55

<210> 44

<211> 24

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: IL-5 peptide

<400> 44

Glu Arg Arg Arg Val Asn Gln Phe Leu Asp Tyr Leu Gln Glu Phe Leu
1 5 10 15

Gly Val Met Asn Thr Glu Trp Ile
20

<210> 45

<211> 141

<212> PRT

<213> Homo sapiens

<400> 45

Glu Gly Ile Cys Arg Asn Arg Val Thr Asn Asn Val Lys Asp Val Thr
 1 5 10 15
 Lys Leu Val Ala Asn Leu Pro Lys Asp Tyr Met Ile Thr Leu Lys Tyr
 20 25 30
 Val Pro Gly Met Asp Val Leu Pro Ser His Cys Trp Ile Ser Glu Met
 35 40 45
 Val Val Gln Leu Ser Asp Ser Leu Thr Asp Leu Leu Asp Lys Phe Ser
 50 55 60
 Asn Ile Ser Glu Gly Leu Ser Asn Tyr Ser Ile Ile Asp Lys Leu Val
 65 70 75 80
 Asn Ile Val Asp Asp Leu Val Glu Cys Val Lys Glu Asn Ser Ser Lys
 85 90 95
 Asp Leu Lys Lys Ser Phe Lys Ser Pro Glu Pro Arg Leu Phe Thr Pro
 100 105 110
 Glu Glu Phe Phe Arg Ile Phe Asn Arg Ser Ile Asp Ala Phe Lys Asp
 115 120 125
 Phe Val Val Ala Ser Glu Thr Ser Asp Cys Val Val Ser
 130 135 140

<210> 46

<211> 141

<212> PRT

<213> Rattus sp.

<400> 46

Gln Glu Ile Cys Arg Asn Pro Val Thr Asp Asn Val Lys Asp Ile Thr
 1 5 10 15
 Lys Leu Val Ala Asn Leu Pro Asn Asp Tyr Met Ile Thr Leu Asn Tyr
 20 25 30
 Val Ala Gly Met Asp Val Leu Pro Ser His Cys Trp Leu Arg Asp Met
 35 40 45
 Val Thr His Ser Leu Val Ser Leu Thr Thr Leu Leu Asp Lys Phe Ser
 50 55 60
 Asn Ile Ser Glu Gly Leu Ser Asn Tyr Ser Ile Ile Asp Lys Leu Gly
 65 70 75 80
 Asn Ile Val Asp Asp Leu Val Ala Cys Met Glu Glu Asn Ala Pro Lys
 85 90 95
 Asn Val Lys Glu Ser Leu Lys Lys Pro Glu Thr Arg Asn Phe Thr Pro
 100 105 110

Glu Glu Phe Phe Arg Ile Phe Asn Arg Ser Ile Asp Ala Phe Lys Asp
 115 120 125

Phe Met Val Ala Ser Asp Thr Ser Asp Cys Val Leu Ser
 130 135 140

<210> 47
 <211> 141
 <212> PRT
 <213> Mus sp.

<400> 47
 Lys Glu Ile Cys Gly Asn Pro Val Thr Asp Asn Val Lys Asp Ile Thr
 1 5 10 15

Lys Leu Val Ala Asn Leu Pro Asn Asp Tyr Met Ile Thr Leu Asn Tyr
 20 25 30

Val Ala Gly Met Asp Val Leu Pro Ser His Cys Trp Leu Arg Asp Met
 35 40 45

Val Ile Gln Leu Ser Leu Ser Leu Thr Thr Leu Leu Asp Lys Phe Ser
 50 55 60

Asn Ile Ser Glu Gly Leu Ser Asn Tyr Ser Ile Ile Asp Lys Leu Gly
 65 70 75 80

Lys Ile Val Asp Asp Leu Val Leu Cys Met Glu Glu Asn Ala Pro Lys
 85 90 95

Asn Ile Lys Glu Ser Pro Lys Arg Pro Glu Thr Arg Ser Phe Thr Pro
 100 105 110

Glu Glu Phe Phe Ser Ile Phe Asn Arg Ser Ile Ala Asp Phe Lys Asp
 115 120 125

Phe Met Val Ala Ser Asp Thr Ser Asp Cys Val Leu Ser
 130 135 140

<210> 48
 <211> 142
 <212> PRT
 <213> Canis familiaris

<400> 48
 Lys Gly Ile Cys Gly Lys Arg Val Thr Asp Asp Val Lys Asp Val Thr
 1 5 10 15

Lys Leu Val Ala Asn Leu Pro Lys Asp Tyr Lys Ile Ala Leu Lys Tyr
 20 25 30

Val Pro Gly Met Asp Val Leu Pro Ser His Cys Trp Ile Ser Val Met
 35 40 45

Val Glu Gln Leu Ser Val Ser Leu Thr Asp Leu Leu Asp Lys Phe Ser
 50 55 60

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Asn Ile Ser Glu Gly Leu Ser Asn Tyr Ser Ile Ile Asp Lys Leu Val
65                      70                      75                      80

Lys Ile Val Asp Asp Leu Val Glu Cys Thr Glu Gly Tyr Ser Phe Glu
                        85                      90                      95

Asn Val Lys Lys Ala Pro Lys Ser Pro Glu Leu Arg Leu Phe Thr Pro
                100                      105                      110

Glu Glu Phe Phe Arg Ile Phe Asn Arg Ser Ile Asp Ala Phe Lys Asp
115                      120                      125

Leu Glu Thr Val Ala Ser Lys Ser Ser Glu Cys Val Val Ser
130                      135                      140

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<210> 49
<211> 142
<212> PRT
<213> Sus scrofa

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<400> 49
Gln Gly Ile Cys Arg Asn Arg Val Thr Asp Asp Val Lys Asp Val Thr
1                      5                      10                      15

Lys Leu Val Ala Asn Leu Pro Lys Asp Tyr Lys Ile Thr Leu Lys Tyr
                20                      25                      30

Val Pro Gly Met Asp Val Leu Pro Ser His Cys Trp Ile Ser Glu Met
35                      40                      45

Val Glu Gln Leu Ser Val Ser Leu Thr Asp Leu Leu Asp Lys Phe Ser
50                      55                      60

Asn Ile Ser Glu Gly Leu Ser Asn Tyr Ser Ile Ile Asp Lys Leu Gly
65                      70                      75                      80

Lys Ile Val Asp Asp Leu Val Glu Cys Met Glu Glu His Ser Phe Glu
                        85                      90                      95

Asn Val Lys Lys Ser Ser Lys Ser Pro Glu Pro Arg Leu Phe Thr Pro
                100                      105                      110

Glu Lys Phe Phe Gly Ile Phe Asn Arg Ser Ile Asp Ala Phe Lys Asp
115                      120                      125

Leu Glu Met Val Ala Pro Lys Thr Ser Glu Cys Val Ile Ser
130                      135                      140

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<210> 50
<211> 13
<212> PRT
<213> Homo sapiens

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<400> 50

Gly His Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn
 1 5 10

<210> 51

<211> 13

<212> PRT

<213> Homo sapiens

<400> 51

Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg Val
 1 5 10

<210> 52

<211> 13

<212> PRT

<213> Homo sapiens

<400> 52

Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu
 1 5 10

<210> 53

<211> 13

<212> PRT

<213> Homo sapiens

<400> 53

Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys
 1 5 10

<210> 54

<211> 13

<212> PRT

<213> Homo sapiens

<400> 54

Gly Val Ser Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp
 1 5 10

<210> 55

<211> 13

<212> PRT

<213> Homo sapiens

<400> 55

Gly Arg Leu Leu Ala Ser Lys Ser Val Thr Asp Glu Cys
 1 5 10

<210> 56

<211> 13

<212> PRT

<213> Homo sapiens

<400> 56

Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr Asn Thr
1 5 10

<210> 57

<211> 13

<212> PRT

<213> Homo sapiens

<400> 57

Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu
1 5 10

<210> 58

<211> 13

<212> PRT

<213> Homo sapiens

<400> 58

Lys Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly
1 5 10

<210> 59

<211> 13

<212> PRT

<213> Homo sapiens

<400> 59

Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala
1 5 10

<210> 60

<211> 13

<212> PRT

<213> Homo sapiens

<400> 60

Gly His Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn
1 5 10

<210> 61

<211> 13

<212> PRT

<213> Homo sapiens

<400> 61

Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg Val
1 5 10

<210> 62
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 <212> PRT
 <213> Homo sapiens

<400> 62
 Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu
 1 5 10

<210> 63
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<400> 63
 Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys
 1 5 10

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<400> 64
 Gly Val Ser Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp
 1 5 10

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<400> 65
 Gly Arg Leu Leu Ala Ser Lys Ser Val Thr Asp Glu Cys
 1 5 10

<210> 66
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 <213> Homo sapiens

<400> 66
 Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr Asn Thr
 1 5 10

<210> 67
 <211> 13
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 <213> Homo sapiens

<400> 67
 Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu
 1 5 10

<210> 68
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<400> 68
 Lys Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly
 1 5 10

<210> 69
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<400> 69
 Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala
 1 5 10

<210> 70
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<400> 70
 Gly His Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn
 1 5 10

<210> 71
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<400> 71
 Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg Val
 1 5 10

<210> 72
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<400> 72
 Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu
 1 5 10

<210> 73
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<400> 73

Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys
 1 5 10

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<211> 13

<212> PRT

<213> Homo sapiens

<400> 74

Gly Val Ser Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp
 1 5 10

<210> 75

<211> 13

<212> PRT

<213> Homo sapiens

<400> 75

Gly Arg Leu Leu Ala Ser Lys Ser Val Thr Asp Glu Cys
 1 5 10

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<211> 13

<212> PRT

<213> Homo sapiens

<400> 76

Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr Asn Thr
 1 5 10

<210> 77

<211> 13

<212> PRT

<213> Homo sapiens

<400> 77

Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu
 1 5 10

<210> 78

<211> 13

<212> PRT

<213> Homo sapiens

<400> 78

Lys Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly
 1 5 10

<210> 79

<211> 13

<212> PRT

<213> Homo sapiens

<400> 79

Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala
1 5 10

<210> 80

<211> 13

<212> PRT

<213> Homo sapiens

<400> 80

Gly His Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn
1 5 10

<210> 81

<211> 13

<212> PRT

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Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg Val
1 5 10

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<400> 82

Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu
1 5 10

<210> 83

<211> 13

<212> PRT

<213> Homo sapiens

<400> 83

Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys
1 5 10

<210> 84

<211> 13

<212> PRT

<213> Homo sapiens

<400> 84

Gly Val Ser Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp
1 5 10

<210> 85
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<400> 85
 Gly Arg Leu Leu Ala Ser Lys Ser Val Thr Asp Glu Cys
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<210> 86
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<400> 86
 Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu
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<210> 87
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 <212> PRT
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<400> 87
 Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu
 1 5 10

<210> 88
 <211> 13
 <212> PRT
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<400> 88
 Lys Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly
 1 5 10

<210> 89
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 <212> PRT
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<400> 89
 Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala
 1 5 10

<210> 90
 <211> 13
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<400> 90
 Asn Ser Asn Asn Lys Arg Ala Pro Tyr Trp Thr Asn Thr
 1 5 10

<210> 91
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 <212> PRT
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<400> 91
 Glu Lys Met Glu Lys Arg Leu His Ala Val Pro Ala Ala
 1 5 10

<210> 92
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 <212> PRT
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<400> 92
 Asn Thr Val Lys Phe Arg Cys Pro Ala Gly Gly Asn Pro
 1 5 10

<210> 93
 <211> 13
 <212> PRT
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<400> 93
 Met Pro Thr Met Arg Trp Leu Lys Asn Gly Lys Glu Phe
 1 5 10

<210> 94
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<400> 94
 Lys Gln Glu His Arg Ile Gly Gly Tyr Lys Val Arg Asn
 1 5 10

<210> 95
 <211> 13
 <212> PRT
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<400> 95
 Gln His Trp Ser Leu Ile Met Glu Ser Val Val Pro Ser
 1 5 10

<210> 96
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 <212> PRT
 <213> Homo sapiens

<400> 96

Asp Lys Gly Asn Tyr Thr Cys Val Val Glu Asn Glu Tyr
 1 5 10

<210> 97

<211> 13

<212> PRT

<213> Homo sapiens

<400> 97

Gly Ser Ile Asn His Thr Tyr His Leu Asp Val Val Glu
 1 5 10

<210> 98

<211> 13

<212> PRT

<213> Homo sapiens

<400> 98

Arg Ser Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro
 1 5 10

<210> 99

<211> 13

<212> PRT

<213> Homo sapiens

<400> 99

Ala Asn Ala Ser Thr Val Val Gly Gly Asp Val Glu Phe
 1 5 10

<210> 100

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<212> PRT

<213> Homo sapiens

<400> 100

Val Cys Lys Val Tyr Ser Asp Ala Gln Pro His Ile Gln
 1 5 10

<210> 101

<211> 13

<212> PRT

<213> Homo sapiens

<400> 101

Trp Ile Lys His Val Glu Lys Asn Gly Ser Lys Tyr Gly
 1 5 10

<210> 102

<211> 13

<212> PRT
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<400> 102
 Pro Asp Gly Leu Pro Tyr Leu Lys Val Leu Lys Ala Ala
 1 5 10

<210> 103
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<400> 103
 Gly Val Asn Thr Thr Asp Lys Glu Ile Glu Val Leu Tyr
 1 5 10

<210> 104
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<400> 104
 Ile Arg Asn Val Thr Phe Glu Asp Ala Gly Glu Tyr Thr
 1 5 10

<210> 105
 <211> 13
 <212> PRT
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<400> 105
 Cys Leu Ala Gly Asn Ser Ile Gly Ile Ser Phe His Ser
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<210> 106
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<400> 106
 Ala Trp Leu Thr Val Leu Pro Ala Pro Gly Arg Glu
 1 5 10

<210> 107
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<400> 107
 Asn Ser Asn Asn Lys Arg Ala Pro Tyr Trp Thr Asn Thr
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<210> 108
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<400> 108
 Glu Lys Met Glu Lys Arg Leu His Ala Val Pro Ala Ala
 1 5 10

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 Asn Thr Val Lys Phe Arg Cys Pro Ala Gly Gly Asn Pro
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<210> 111
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<400> 111
 Lys Gln Glu His Arg Ile Gly Gly Tyr Lys Val Arg Asn
 1 5 10

<210> 112
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 Gln His Trp Ser Leu Ile Met Glu Ser Val Val Pro Ser
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<210> 113
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<400> 113
 Asp Lys Gly Asn Tyr Thr Cys Val Val Glu Asn Glu Tyr
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<210> 114
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 <212> PRT
 <213> Homo sapiens

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